

Title (en)

TWO-DIMENSIONAL PHOTONIC CRYSTAL SURFACE-EMISSION LASER

Title (de)

EMISSIONSLASER MIT ZWEIDIMENSIONALER PHOTONISCHER KRISTALLOBERFLÄCHE

Title (fr)

LASER A EMISSION DE SURFACE A CRISTALL PHOTONIQUE BIDIMENSIONNEL

Publication

**EP 1411603 B1 20091209 (EN)**

Application

**EP 02743816 A 20020703**

Priority

- JP 0206764 W 20020703
- JP 2001204315 A 20010705

Abstract (en)

[origin: EP1411603A1] Two-dimensional photonic crystal surface-emission laser comprising a two-dimensional photonic crystal, having media different in refractive index arrayed in a two-dimensional cycle, disposed in the vicinity of an active layer that emits light by the injection of carriers, wherein the two-dimensional photonic crystal consists of square lattices having equal lattice intervals in perpendicular directions, and a basic lattice consisting of a square with one medium as a vertex has an asymmetric refractive index distribution with respect to either one of the two diagonals of the basic lattice to thereby emit light in a constant polarizing direction.

IPC 8 full level

**H01S 3/06** (2006.01); **H01S 5/183** (2006.01); **H01S 5/10** (2006.01); **H01S 5/18** (2006.01)

CPC (source: EP US)

**H01S 5/11** (2021.01 - EP US); **H01S 5/183** (2013.01 - EP US)

Cited by

EP1821378A4; EP2166627A4; EP1610427A4; EP1855327A3; EP2013952A4; GB2428887A; GB2428887B; US8300672B2; US8605769B2; US8012780B2; WO2007126159A1; US8089498B2; US8508567B2; US8830287B2; US7893451B2; US7939840B2; US8003993B2; US8008103B2; US9837578B2

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